

What is claimed:

1. A tailgate assembly for a motor vehicle, said tailgate assembly comprising:
an integrally formed inner structural panel including a support surface, opposing upper and lower walls extending laterally along said support surface, a pair of end walls extending between said upper and lower walls, and a plurality of ribs spaced apart and disposed between said upper and lower walls and extending laterally between said end walls;
a reinforcing panel secured to said inner structural panel between at least two of said plurality of ribs providing a box structure; and
an outer panel overlying said reinforcing panel and extending between said upper and lower walls and said end walls.
2. A tailgate assembly as set forth in claim 1 wherein each of said plurality of ribs includes a top flange for receiving said reinforcing panel therealong.
3. A tailgate assembly as set forth in claim 2 wherein said inner structural panel includes a plane rib extending laterally along said support surface adjacent to and spaced apart from said lower wall.
4. A tailgate assembly as set forth in claim 3 wherein said inner structural panel further includes a non-linear support rib extending between said plane rib and said lower wall.
5. A tailgate assembly as set forth in claim 4 including a top rail cap secured over said outer panel and said inner structural panel for providing said tailgate assembly with a finished appearance.
6. A tailgate assembly as set forth in claim 5 wherein said outer panel includes lip flanges extending over said upper and lower walls securing said outer panel to said inner structural panel.
7. A tailgate assembly as set forth in claim 6 wherein said inner structural panel includes a loading surface opposite said support surface defining a plurality of recesses.

8. A tailgate assembly as set forth in claim 7 wherein said inner structural panel is formed from a thermoplastic material.

9. A tailgate assembly as set forth in claim 8 wherein said reinforcing panel is formed from a reinforced organic material.

10. An inner structural panel for a tailgate assembly of a motor vehicle, said inner structural panel comprising:

a support surface having a plurality of ribs extending laterally along said support surface;
and

a reinforcing panel secured to at least two of said plurality of ribs to box said inner structural panel.

11. An inner structural panel as set forth in claim 10 wherein each of said plurality of ribs includes a top flange for receiving said reinforcing panel therealong.

12. An inner structural panel as set forth in claim 11 including spaced apart upper and lower walls extending laterally along said support surface.

13. An inner structural panel as set forth in claim 12 including a pair of end walls extending longitudinally along said support surface between said upper and lower walls.

14. An inner structural panel as set forth in claim 13 including a plane rib extending laterally along said support surface adjacent to and spaced apart from said lower wall.

15. An inner structural panel as set forth in claim 14 including a non-linear support rib extending between said plane rib and said lower wall.

16. An inner structural panel as set forth in claim 15 including a top rail cap secured over an outer panel and said upper wall for providing the tailgate assembly with a finished appearance.

17. An inner structural panel as set forth in claim 16 including a loading surface opposite said support surface defining a plurality of recesses.

18. An inner structural panel as set forth in claim 17 wherein said reinforcing panel is formed from a reinforced organic material.